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# TACTICAL RECONNAISSANCE

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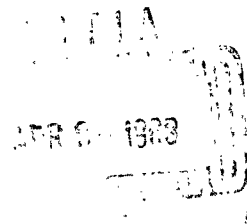
# SOME RAMBLINGS AND MUSINGS ON TACTICAL RECONNAISSANCE

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# Foreword

The notes which follow were dictated in January 1961; they represent the beginning of a rethinking process about tactical reconnaissance. When I tried these ideas out on those concerned with tactical recce in the late 1950's and up to the time I dictated them, I found that they ran across the then current fashion of thought.

On the other hand, I have on occasion, met sympathetic, and hence lonely, souls who are beginning to see the light.

The Cuban affair has stimulated both praise and reappraisal, the latter often agonizing, of our recce capability. In addition, and of more enduring significance, recce has received prominence, attention and priority. Tac recce, coin recce, combat recce--all are okay subjects.

The ideas in these notes are fragmentary, but aim, if not point, in the direction which looks most promising to me.

Since the end of World War II there have been many discussions, studies, projects, suggestions, inventions, and programs bearing on the subject of tactical reconnaissance.

For purposes of this paper we may define tactical reconnaissance as that kind of reconnaissance performed during combat (during the period of actual hostilities) in support of military activities which are neither those of the cold war nor those of the all-out central thermonuclear war.[*] Thus tactical reconnaissance may be regarded as combat reconnaissance in support of every war between but not including the end points of the war spectrum.

Despite the enormous effort, intellectual and otherwise, that has gone into the study of tactical reconnaissance, it is my firm opinion that as we enter the 1960's we know little about tactical recce, we are in comparatively poor shape, and have a larger set of problems ahead of us than behind us. A moment's reflection will indicate why this is so.

On the one hand, we face the distinct possibility of engagement in a bewildering variety of places around the rim of the free world, ranging from jungle and tropics to desert and mountains. On the other hand, we face levels of violence from the guerrilla-level action to the war just short of central war--a high-level limited war. Further, we also face possible military situations which range from insurrection, riot, and civil war, to hostilities in which our major potential enemy, the Soviet Union, may be engaged overtly or covertly. In short, we are faced with a multi-dimensional choice of situations for which simple-minded, one-point type weapon system preparations seem and actually are completely inappropriate and insufficient. This is in addition to, and apart from, the fact that they convey a dangerous and unwarranted overconfidence in what is presented as a "solution."

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[*] If anyone wants to argue with this definition, let him write his own paper.

We have seen the tendencies for the scientific and technical solutions to achieve prominence since the end of World War II. While our problems are diffusing and broadening, involving a mixture of political and technical considerations--our solutions are tending to become mechanistic and rigid. Do we have a problem detecting the movement of guerrillas or soldiers who cannot be distinguished from civilians? Of what use is a Mach III airplane with multisensor radar, infrared, and photography to solve this problem? As long ago as 1950 in Korea, the difficulty with mechanistic solutions to reconnaissance problems was becoming evident. What we desperately needed in Korea was an A-Frame Detector. The bulk of the supplies used by the Chicóms was moved by foot. We had no A-Frame Detector. Our reconnaissance was woefully inadequate _for that job_. In other situations it was a mismatch for the job at hand. This mismatch became evident at that time, but the tendency to become more mechanistic and technical has become even more pronounced since then. Our airplanes have become more expensive, faster, more complex. Our reconnaissance gear is more mechanical, more expensive, more complex. The problem may be moving in the other direction. We still need an A-Frame Detector.

Is there any hope for "solutions" to the reconnaissance problem to be found in the numerous studies by the Air Force, the activities of the Army, the studies by private research organizations? I suggest no. These are interesting, suggestive, and may occasionally point the way to other research, and more often, to more contracts, but in general I find most of these studies profoundly depressing and almost irrelevant to the problem as I see it. Remember, this is a personal view.

A brief look at World War II and the reconnaissance history thereof may shed some insight on the situation to be encountered in the future. Now all of us who had any experience with World War II believe that if we had to do that one over again, we'd all be geniuses at it. Unfortunately, that is not the problem we have at hand. The real question is, are we as smart or smarter with

respect to the problems now facing us, and the problems likely to
face us in the future, as the people planning and executing cor-
responding activities were in 1940?  It would be quite arrogant,
and, I'm convinced, an extreme error, to claim greater intelligence
for us with respect to the future than that exhibited by our
colleagues of a score of years ago with respect to their future.
We must remember what we seem to have learned from the past and
of the past.  And what we learned is, in general, and unfortunately,
applicable mainly, if not only, to the past.  Hence, the compulsion
to look at the past with 20-20 hindsight and see how we should have
done it if we had been in charge.

Now what about reconnaissance and World War II?  Well, we did
have a bunch of pretty smart people involved.  If we examine the
course of that war we find that we entered the war with a set of
aircraft, a kind of training method, some doctrine, some dogma,
some principles, some practice, some organization, and some under-
standing or  preconception of how reconnaissance was to be employed.
Not a single one of those elements survived the war: neither equip-
ment, nor practice, nor theory, nor principles, nor aircraft.  It
was found necessary to make changes during the course of the war.

A careful examination of the reasons for this indicates that
we ran into situations and opportunities which were not anticipated.
I defer to those who wish to argue whether or not the real situations
could have been anticipated.  I argue simply that this collection of
smart guys did not so anticipate them, and that, by and large, they
were at least as clever, at least as imaginative, as we are today
with respect to the future.  In fact, it might be argued that we
are relatively less smart now than those people were then, since
our problems are now more difficult.  So whether or not we are as
good a match to our future, as our former colleagues were a score
of years ago to their future, may be an arguable proposition.  I
would assert that we are not as good a match.

What jobs will tactical reconnaissance be required to perform
in the future?  I will put aside the contributions to waging limited
war which can be made by prehostility reconnaissance (I leave these
aside not because they are unimportant, but because they are a part

of a much larger subject: what we do in prehostilities intelligence and recce altogether). We find that the conventional jobs are targeting, strike recce, bomb damage assessment and evaluation, support of ground troops, etc., etc.

Now many things can be done in a prehostilities era, but these involve the preparation of maps and charts to guide our manned and unmanned airborne systems, targeting fixed points, etc. Clearly, when combat starts, transient and mobile targets will be of greater importance. A transient target is one which is a target for only a short time. A classic example would be the gathering of a number of troops at a bridge crossing; before they gather at the bridgehead they are not a target, and after they cross and disperse again they are not a target. A mobile target is simply a good target which moves, and which, if and when you can find it, is a target.

Although a few moments ago I emphasized the importance of A-Frame Detectors, there is another problem, which at least for some kinds of war, in Europe and elsewhere, is of extreme importance. This is the problem of finding mobile missiles, and requires separate and depressing treatment; I reserve this for another paper.

Are there any saving features out of this otherwise difficult, dismal, and bleak prospect? Fortunately, the answer is yes. As we look at the kinds of limited wars that have occurred since World War II (and including that war) and as we look at the possibilities for the future, we find that one useful thing characterizes these "limited" wars: the comparatively leisurely pace of prosecution of the war itself. The term "comparative" as used in the previous sentence is relative to the kind of pace of thermonuclear exchanges which at least some strategists have envisioned, in which there is a fairly quick exchange and then a period of fighting with clubs. This comparatively leisurely pace is fortunate, because otherwise there would be little chance or little hope of our getting our mobile forces (which may have to be transported great distances) into combat at all. Despite the fact that airplnes fly fast, the movement of a whole division with supporting gear is not an instantaneous operation.

The foregoing observation permits me the luxury of making the next saving observation. Because of the comparative leisure and pace in which limited wars are fought, and the consequent comparative leisure and slowness in which we can afford to get engaged, there should be some comparative leisure in adapting and learning during the actual course of the engagement. And here we answer the question raised, implicitly, earlier. If everything (recce) we entered World War II with was changed, how, and by whom? We learned during the war. People were fired, others were promoted. It was a time for proof by fire and shot, and the indefinite future that now stretches ahead was compressed: the problems were at hand, and those ideas that were poor were demonstrated so, and quickly.

I am slowly, and with faltering steps, leading up to the suggestion that what we need above all in any future limited war is improvisation on the spot. Does this mean we should do no thinking until we get there? Of course not. But most of the kind of thinking I have seen is so structured and so rigid that if we run up against situations that require changes we will be unable to make them, having been locked in by a belief in the divine origin of the plans and programs and studies which we have been swallowing and in which we have been wallowing for lo these many years.

An experimental approach, an ability to improvise are more easily ordered than obtained. (I will offer below some positive suggestions for methods of developing such abilities.) Yes, my audience should say at this point, but you certainly don't mean we should go totally unprepared? Of course not! A few basic tools will likely be handy for reconnaissance in any environment. And these we should take with us. These include some rudimentary photographic equipment, a visual reconnaissance capability and some all-weather gear, preferably some high resolution radar. One of the difficulties in thinking of any limited war is to arrive at an understanding of the location of our command posts, intelligence centers, data analysis sytems, and in fact the entire intelligence and control cycle.

Some recommendations that emerge immediately are (1) development of a strong visual reconnaissance capability for both reconnaissance

and strike attack, (2) developing skills of improvisation with re-
spect to organization and use of equipment, and (3) the development
of command structure and intelligence set-ups, with enough flexi-
bility to permit exploiting improvised reconnaissance techniques.

How can we go about doing this? While I may not be sure how
to do it, I am reasonably sure how not to do it; and one way of not
doing it is by studies and theoretical analyses. Above all, I think
we need a strong experimental approach to the problem. We need
people playing the devil and the devil's advocate and we need people
trying to crack the devil's case. In short, we need some tactical
reconnaissance maneuver systems and ongoing games (I don't really
like the use of the word "game" here, and I'm sure it's ill-advised;
"game" is usually pre-empted for things played in a basement on/or
with a computer). We need to be working at limited war reconnaissance,
developing skills, improvisation, finding people who are good at it,
so that when we need them we will have them. One way in which we
can really practice, develop, and hopefully invent the kinds of skills
which I suggest will be needed is through a modification or enlargement
of a real three-dimensional exercise I recently proposed for inspection
purposes--an experiment I call Hiders/Finders.[*]

In a particular adaptation for reconnaissance we could well
employ real war games (with the previous caveat on the word "game")
in which actually military units use the tactics, the techniques,
of potential enemies, thus providing our reconnaissance units with
actual, not fancied, methods of doing experiments. We could thus
develop methods of doing visual reconnaissance, of communication,
of setting up intelligence centers, data processing centers, under
field conditions. To the best of my knowledge, no such experiment
has been performed for many years. These skills that many people
think they have in reconnaissance are rapidly vanishing. From what
has been published about the annual reconnaissance game played by
the Allied Force of Central Europe, I doubt its applicability to

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[*]Katz, A. H., Hiders and Finders, The RAND Corporation, P-2432,
April 21, 1961. Also published in Bulletin of the Atomic Scientists,
Volume XVII, No. 10, December 1961.

any real situation--interesting, provocative, and enlightening as
such recce exercises are.

What I am saying is that these exercises are a lot better than
nothing, but a long way from being good enough.  It would be well
worth the effort of the Tactical Air Command of the NATO Air Forces
to plan and execute the kind of operations which could not help
but sharpen their skills, demonstrate weaknesses, provide guide-
lines to the development of strengths, and provide the insights
so sorely needed before much progress can be made.

Only by realizing that actual situations may be different from
those anticipated or pre-planned, can one develop resiliency.
Being fully preoccupied with rigid scenarios and mechanistic solu-
tions makes for brittleness.